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5-2003

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Repository Citation

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Inclusion

Maximizing Learning Opportunities Through Activity Modification

by Susan L. Kasser and Lauren Lieberman

Physical educators have long been committed to providing children with well-designed and developmentally appropriate physical education—physical education that they believe will provide the skills, attitudes, and motivation necessary for lifelong physical activity participation. Yet this level of commitment is becoming increasingly more difficult to sustain with the changing nature of physical education classes. Today, an ever-increasing number of youngsters with extremely varied ability levels are being included in general physical education (Block, 2000). Physical education classes now include children with considerable differences in attention spans, coordination, concept understanding, and fitness. In addition, increased participation in youth sports programs now results in disparate experiences among children and fosters the involvement of some students with quite highly refined and well-honed skills as compared to others.

As a result of the changing face of physical education classes, traditional games such as tag or kickball no longer meet all the needs of this diverse group of children. More and more players are tagged too easily or strike out at home plate before ever having a chance to develop the prerequisite skills necessary for meaningful engagement and continued physical activity. As physical education professionals now deal with the realities surrounding the involvement of students with varied abilities in their classes, many of their questions concern the practical issues and necessary changes that need to occur. How does modifying activities benefit those children with significantly different ability levels? How difficult will it be to make modifications considering the specific activity and increased number of students involved? Which modifications are the most appropriate to employ when including students of differing abilities?

Activity Modifications Benefit All

While the concerns and challenges of including students with ability differences into physical education are valid, the benefits of varying teaching strategies and modifying activities decidedly outweigh these difficulties. In fact, including children with significantly different abilities in general physical education without making modifications for them is not effective in many cases (Block, 2000; LaMaster, Gall, Kinchin, & Siedentop, 1998).

Although the benefits of modifying activities are many, one of the more important reasons relates to that of student motivation. When a student is included in an activity in which she experiences little to no success, frustration and lack of motivation for future involvement may result. Modifying activities not

only allows for skill development and increased motivation on the part of participants, it can also work to shape the perceptions of others in the class. Peers who observe others' achievements and believe another student's participation to be a meaningful contribution to the activity or outcome of a game will more favorably perceive and accept the student. This in turn may foster increased excitement and satisfaction and motivate each of them to continue participation.

Many of the strategies surrounding activity modification may be more essential and thus typically implemented when involving children with low motor, cognitive, or behavioral capacities. Nevertheless, all students, including those highly skilled, can benefit from the variety of instructional strategies and unique game variations that exist within an inclusive teaching approach. For instance, students may come to a soccer unit in physical education with very well-developed eye-foot coordination, balance, agility, and strategic capabilities. These students can be effectively challenged and their skills improved through modifications. Requiring a certain number of passes before shooting on goal or decreasing the size of the goal to require increased accuracy demands may keep these students engaged and their skill capabilities progressing. Modifications that provide optimal levels of challenge and still allow success may keep these students engaged and their skill capabilities progressing. Practitioners committed to this way of thinking and teaching appreciate the continuum of uniqueness of those with whom they work. They strive to create and construct accommodating environments in which all children feel self-confident, are optimally challenged, and can succeed.

General Prerequisites for Modifying Activities

If physical educators are committed to giving students the skills and experiences they need to be self-confident and motivated individuals, then an inclusive teaching approach geared to including students of all abilities is called for. What remains, then, is how to support and accommodate all students and assure an enjoyable, beneficial experience for each of them within the physical education setting. Including all students necessitates changes in attitudes and, most importantly, teaching approaches that facilitate appropriate and optimal programming. It requires a change in the way some skills are taught, various games are played, and certain outcomes are achieved. It involves considering all members of a class important participants with a range of abilities—all of whom can

benefit from some support and modification. This change in perspective is critical if successful accommodation of all children in physical education is to be achieved.

While there is no “cookbook” approach that can be offered to facilitate this end, the following points are important to consider:

- Gather information regarding the student’s abilities from a variety of resource personnel and professionals.
- Assure that activity decisions are based on identified goals and objectives that are meaningful, age-appropriate, and consider present and long-term physical activity plans. (See Block, 2000 for factors when prioritizing goals and objectives.)
- Avoid simply disregarding a specific activity due to the student’s lowered skill level or lack of previous experience.
- Realize that inclusion is not an all-or-none proposition. While some students may join in full game play, others may be involved in group drills or individual skill development. Yet all participate in an inclusive setting.

Specific Strategies

In order to successfully include children of all abilities, a sequence of steps can be followed to facilitate the process. Although some of the initial steps may be time consuming and the process at times complicated, the benefits for all those involved are well worth the time and effort.

Step 1: Understand the Student’s Abilities

The first step in successful inclusion is to discover the child’s abilities. The focus should be on what the child **CAN** do rather than what he or she cannot. A short checklist may be used to emphasize the skills and capabilities of the student (see example in Table 1). This knowledge can be obtained through direct observation of the child while participating, from information specified in the child’s individualized education plan (IEP), and /or through conversations with the child’s teacher, family, physical therapist, or child herself.

Knowing what the child can do allows the practitioner insight into which activities may or may not need to be modified.

Understanding what a child can see, how a child ambulates, and what the child’s cognitive ability is can provide this important basis. For example, when it is discovered that Julia in 3rd grade has no peripheral vision and can only see through her central vision, the teacher knows to stand 4-6 feet from Julia to ensure her entire body is in her field of vision. In addition to this basic information, the practitioner should also consider other aspects critical to the child’s movement skill capabilities. These include the student’s eye-hand coordination, balance ability, fitness level, etc. By focusing on what children are able to do and sharing this information with other students and support staff, the inclusion of students with varying abilities into physical education is off to a positive start.

Step 2: Enhance Peer Awareness of Needed Modifications

In order for inclusion efforts to be successful, the child’s ability differences must also be understood and accepted by his /her peers. When peers in the class do not understand a child’s differences in ability, they are often reluctant to accept any modifications made (Wilson & Lieberman, 2000). There are many ways to help peers increase their awareness of the wide range of ability differences existing within a class.

One interesting way for peers to more fully understand the need for activity modifications is to have them experience the modifications themselves (Lieberman & Houston-Wilson, 2002). Students in the class can have opportunities to actually try a specific modification for a short time while participating in the activity. For instance, peers might take turns using a wheelchair or walker while involved in a tag game with rule modifications; or a peer may participate in a volleyball lead-up activity involving a brightly colored and enlarged ball while wearing special glasses that simulate a difference in visual ability. Regardless of the strategy employed, it is important to ask the child needing the modification how much she wants her peers to know and how best to share this information.

For peers to better accept game or activity variations, they must recognize and appreciate that any changes made do not give another student an advantage. Instead, they must understand that these modifications allow each student to have similar experiences and opportunities for success. They may

Table 1—What CAN the Child Do?

Student’s name: _____	Physical Educator: _____
Classroom teacher: _____	Case manager: _____
<i>Please describe the following:</i>	
Ambulation (How does the child walk?): _____	
Vision: _____	
Hearing: _____	
Cognitive abilities: _____	
Behavioral abilities: _____	
Fitness level: _____	
Motor skill abilities: _____	
Other: _____	

also see that modifications may in fact make a game more challenging and exciting for them. When the students in the class accept this practice, the following modifications will be more easily implemented.

Step 3: Find Out What Works

The next step in the process is finding out what needs to be changed in order to include children with differences in ability more successfully. There are many variables that can be manipulated or modified in any activity so all children can participate. These variables can relate to equipment, instruction, or the physical setting.

Modifying Equipment. Modifying equipment is one common strategy used to help children become more successful.

Changing the size, resiliency, and texture of balls, using auditory balls, or modifying the size and weight of implements may enhance skill performance for some students. For example, Penny, a 3rd grader with pain in her hands and shoulders from rheumatoid arthritis, may need to play catch with a soft foam ball to assist her in gripping and controlling the object. Changing the color and size of targets or the height of targets or nets can also add to success. Tommy, a child who experiences difficulty with eye-hand coordination activities, can participate more successfully in a badminton lead-up game using a large birdie, oversized racket head, and slightly lowered net. As well, a student with highly developed skills may benefit from equipment changes such as using smaller balls or targets to increase challenge and skill development.

Modifying Instruction. Another strategy for modifying activities focuses on the instructional aspect of the class. Instructional modifications can include employing a specific teaching style for a given group of children (Mosston & Ashworth, 2002), using trained peer tutors (Lieberman & Houston-Wilson, 2002), or using trained teacher assistants (Murata & Jansma, 1997). For instance, Tamiqua, a 1st grader with autism, can participate more fully with the help of a 5th grade trained peer tutor who assists in keeping her attention and increasing her academic learning time and physical activity levels. In this case and others in which peers or staff provide support, it is important that the practitioner provide training and ongoing communication with those involved. Student strengths and the type and extent of support needed must be shared if this inclusive strategy is to be effective. Instruction that involves student choices as it relates to skill performance may also facilitate the inclusion of a wider range of abilities within an activity. A student may choose to perform a log roll in gymnastics over a forward roll until skill performance and confidence are increased. Others may choose more difficult and complex stunts as well.

Another typical instructional modification involves changes to game rules. Students do not necessarily need to play the same game in the same way. Player expectations can be altered, the rules simplified, the choices available in a game reduced or increased, and quick changes in roles (i.e., offense to defense) eliminated. Some examples of rule modifications include creating a three foot buffer zone for defense in hockey, allowing a child to have a no-strike-out rule in softball, having a child throw a ball over the net instead of bumping it, or having a different number of tags before becoming frozen in a tag game. Kameron, for instance, receives a point for each base he touches in softball instead of only receiving a point if he reaches home plate. This way, if he is thrown out at second base, he is still successful at earning points for his team. Jamie, on the other hand, might be asked to hit and place the ball in a specific area of the field in order to be a "fair" ball. In both cases, the modification is based on the student's ability and allows a balance between an optimal challenge and success.

Modifying the Setting. Inclusion of students with different ability levels can further be facilitated through modifying the physical setting. Within the physical education environment, the practitioner may need to dim the lights, have children play the activity on a hard surface as opposed to grass, or reduce external stimuli and distracting materials on the walls. For instance, moving the instructional area indoors or to a hard sandy surface outside may allow students who use wheelchairs to be more mobile while engaged in a game of modified soccer.

Choosing one or more variables to change in the setting can give the

child the opportunity she or he needs to participate more fully in general physical education. It is important to keep in mind that there are numerous aspects that can be modified to ensure active involvement for all children, regardless of ability level.

Step 4: Reevaluate and Revise Modification Strategies

Modifications are not a one-time practice. It is extremely important to evaluate the modifications made and assure they are as effective as possible. Table 2 poses important questions all practitioners should ask themselves to determine if the modifications they employ are continually meeting their intended goal. This reflective process is also useful for writing individualized goals and objectives, assisting in continual modification of the curriculum, and better providing meaningful feedback to families. The most effective teachers are those who are creative, who can see the abilities of each member of the class, and who employ a multitude of strategies when teaching to the wide range of skills and abilities within a class. They must also reassess and reevaluate to know whether or not what they are doing should continue or be changed to promote student confidence and success.



Simple modification for dribbling.

Table 2—Adaptation Checklist

(Check all that apply)

1. ☐ Is the adaptation safe?
2. ☐ Does the modification maintain the concept of the game?
3. ☐ Was the child included in the adaptation and does he or she embrace the concept?
4. ☐ Is the game still age appropriate?
5. ☐ Is the child still included successfully?
6. ☐ Is the adaptation holding the child back and not affording a challenge?
7. ☐ Does the adaptation still allow the child with the disability to work on either class goals or IEP goals?
8. ☐ Does the adaptation alienate the child from the rest of the class?
9. ☐ Could the adaptation be minimized or eliminated?
10. ☐ Other _____

(Lieberman & Houston-Wilson, 2002)

Conclusion

While the challenges of including all students in physical education are real, there is one overriding consideration: How successful is each child as a result of the teaching approach adopted? Considering the importance of accommodating all students, it is essential that practitioners explore new ways of teaching, discover a range of strategies for including students

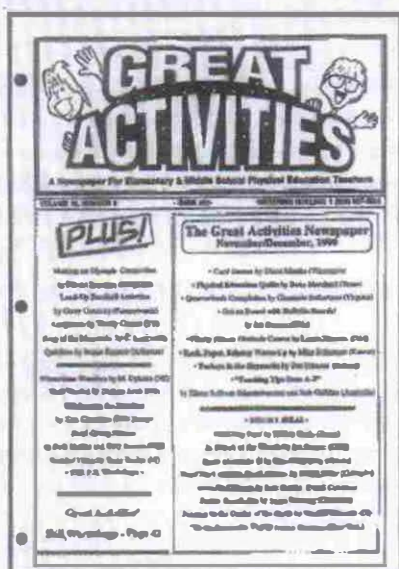
with diverse abilities, and continually rethink and revise lessons and activities. More than asking which students to include and how to accommodate only these students, practitioners should be asking how they can modify activities for all students to be successful. More than likely, the answer to this question is also complex. Yet, it is not easily discarded when the alternative is a class in which only the skilled feel good about their involvement and achieve desired outcomes, and those less skilled are at risk for ceasing physical activity participation. It also ignores those most skilled who stop participating due to a lack of challenging activities and subsequent boredom. Teaching approaches, inclusive of all, are critical to the success and commitment of all students. While good inclusionary practice takes time and support, the benefits are far reaching.

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